

IN THE CLAIMS

Please cancel claims 1, 2, 4, 10 and 11, amend claims 3 and 5-9, and add new claims 12-17 as follows:

1-2. (Cancelled).

3. (Currently Amended) ~~Method of noise filtering (3) as claimed in claim 2A~~ method of noise filtering a signal, the method comprising the steps of:

estimating a type of noise in the signal; and

5 enabling one of at least two noise filtering operations, the enabled noise filtering operation being a most suitable noise filtering operation for the estimated type of noise,

wherein said enabling step comprises the sub-steps:

10 enabling a median filtering operation if the estimated type of noise is long-tailed noise; and

enabling a spatio-temporal rational filtering operation if the estimated type of noise is Gaussian noise or contaminated Gaussian noise,

15 wherein the sub-step of enabling a spatio-temporal rational filtering operation (310, 311) comprises the further sub-steps:

enabling a first spatio-temporal rational filtering operation ~~(310)~~ if the estimated type of noise is Gaussian noise; and

20 enabling a second spatio-temporal rational filtering operation ~~(311)~~ if the estimated type of noise is contaminated Gaussian noise,
——— and wherein the first spatio-temporal rational filtering operation ~~(310)~~ takingtakes into account at least one temporal
25 direction, and the second spatio-temporal rstional filtering operation ~~(311)~~ takingtakes into account at least one combination of a temporal direction and a spatial direction.

4. (Cancelled).

5. (Currently Amended) ~~Method of noise filtering (3) as~~
~~claimed in claim 2A~~ method of noise filtering a signal, the method
comprising the steps of:

estimating a type of noise in the signal; and
5 enabling one of at least two noise filtering operations,
the enabled noise filtering operation being a most suitable noise
filtering operation for the estimated type of noise,
wherein said enabling step comprises the sub-steps:
enabling a median filtering operation if the estimated
10 type of noise is long-tailed noise; and

enabling a spatio-temporal rational filtering operation if
the estimated type of noise is Gaussian noise or contaminated
Gaussian noise,

and wherein:

15 _____ a kurtosis of the noise ~~(z)~~ is used ~~(303)~~ as a metric for
estimating the type of noise;

the median filtering operation ~~(312)~~ is enabled if the
kurtosis is above a first threshold; and

20 the spatio-temporal rational ~~noise~~ filtering operation
~~(310, 11)~~ is enabled if the kurtosis is below said first
threshold~~+~~.

6. (Currently Amended) ~~Method~~ The of noise filtering ~~(3)~~ as
claimed in claim 3, wherein:

_____ a kurtosis of the noise ~~(z)~~ is used ~~(303)~~ as a metric for
estimating the type of noise;

5 the median filtering operation ~~(312)~~ is enabled if the
kurtosis is above a first threshold;

~~_____ the rational noise filtering operation (310, 311) is~~
~~enabled if the kurtosis of the noise is below said first threshold,~~
~~wherein the rational filtering operation comprises:~~

10 ~~enabling the first~~ spatio-temporal rational filtering
operation ~~(310)~~ is enabled if the kurtosis is below a second

12. (New) The method of noise filtering as claimed in claim 5, wherein in said noise estimating step, the noise in the signal is estimated by a difference between the signal and a noise-filtered version of the signal.

13. (New) The method of noise filtering as claimed in claim 12, wherein the noise-filtered version of the signal is obtained by subjecting the signal to a median filtering operation.

14. (New) A device for noise filtering a signal, the device comprising:

means for estimating a type of noise in the signal;

a median filter for filtering said signal;

5 a first spatio-temporal rational filter and a second spatio-temporal rational filter for filtering said signal; and

means for enabling one of said median filter and said first and second spatio-temporal rational filters, the enabled filter being a most suitable filter for the estimated type of

10 noise,

wherein said enabling means:

enables said median filter if the estimated type of noise is long-tailed noise;

enables said first spatio-temporal rational filter if the
15 estimated type of noise is Gaussian noise; and

threshold, said second threshold being lower than said first threshold; and

15 ~~enabling~~ the second spatio-temporal rational filtering operation ~~(311)~~ is enabled if the kurtosis is above the second threshold and below the first threshold.

7. (Currently Amended) ~~A~~ The method of noise filtering ~~(3)~~ as claimed in claim 6, wherein the first threshold is about 15 and the second threshold is about 6.

8. (Currently Amended) ~~Method~~ The method of noise filtering ~~(3)~~ as claimed in claim ~~1~~ 3, wherein in said noise estimating step, the noise ~~(z)~~ in the signal is ~~approximated~~ estimated by a difference ~~(302)~~ between the signal ~~(x)~~ and a noise-filtered ~~(301)~~ version of the signal ~~(x)~~.

9. (Currently Amended) ~~Method~~ The method of noise filtering ~~(3)~~ as claimed in claim 8, wherein the noise-filtered version of the signal ~~(x)~~ is obtained by subjecting the signal ~~(x)~~ to a median filtering operation ~~(301)~~.

10-11. (Cancelled).

enables said second spatio-temporal rational filter if the
estimated type of noise is contaminated Gaussian noise,

and wherein the first spatio-temporal rational filter
takes into account at least one temporal direction, and the second
20 spatio-temporal rational filter takes into account at least one
combination of a temporal direction and a spatial direction.

15. (New) A video system comprising:

means for obtaining an image sequence; and

a device as claimed in claim 14 for noise filtering the
image sequence.

16. (New.) A device for noise filtering a signal, the device
comprising:

means for estimating a type of noise in the signal;

a median filter for filtering said signal;

5 a spatio-temporal rational filter; and

means for enabling one of said median filter and said
spatio-temporal rational filter, the enabled filter being a most
suitable filter for the estimated type of noise,

wherein said enabling means enables said median filter if
10 the estimated type of noise is long-tailed noise, and enables said
spatio-temporal rational filter if the estimated type of noise is
Gaussian noise or contaminated Gaussian noise,

wherein said estimating means uses a kurtosis of the noise as a metric for estimating the type of noise,

15 and wherein said enabling means:

enables said median filter if the kurtosis is above a first threshold; and

enables said spatio-temporal rational filter if the kurtosis is below said first threshold.

17. (New) A video system comprising:

means for obtaining an image sequence; and

a device as claimed in claim 16 for noise filtering the image sequence.
